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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,107	10/30/2001	Hideo Yoshizawa	KIT-331(10107588)	9630
24972	7590	06/24/2004	EXAMINER	
FULBRIGHT & JAWORSKI, LLP 666 FIFTH AVE NEW YORK, NY 10103-3198			VINCENT, SEAN E	
			ART UNIT	PAPER NUMBER

1731

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/914,107	Applicant(s) YOSHIZAWA ET AL.	
	Examiner Sean E Vincent	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 20-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "the vent" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 20 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kawai et al (US 4125390). Kawai et al taught glass panels including a pair of glass sheets with spacers therebetween and sealed outer peripheries and a gap formed between the glass sheets and a vent which is sealed with a metal solder (see the figures, abstract, col. 2, lines 21-50 and columns 3 and 4).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 21-23, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai et al .

8. Kawai et al did not teach an inflow preventing member or a getter. It would have been obvious for a person of ordinary skill in the art to include an inflow preventing member or a getter in the glass panels described because these elements were well known parts of vacuum sealed optical devices.

9. Kawai et al did not teach that the metal solder was to come into contact with the other (non-vented) glass sheet. It would have been obvious for a person of ordinary skill in the art to flow the molten solder through the vent to come into contact with the other glass sheet because

the resulting seal glass-to-metal interface would have had more surface area, and therefore a better hermetic seal.

10. Claims 15-19 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai et al in view of Ljung et al (US 4159075). Kawai et al did not teach that the metal solder was heated to break open an oxide skin. Ljung et al taught the use of indium as a metal solder for "highly polished" and cleaned surfaces of glass substrates (see figures, abstract, col. 2, line 65 to col. 3, line 44). Col. 3, lines 33-36 state "The high deformation and flow that makes the wire spread out to a width of 2-3 mm causes fresh unoxidized indium to flow out and contact the highly cleaned surfaces to be bonded." It would have been obvious for a person of ordinary skill in the art to use the seal of Ljung et al in the method of Kawai et al because Ljung et al stated at col. 3, lines 40-44 "The bonding forces in the method of the invention are usually in the order of 100 Newtons/cm. Because the indium bonded seal recrystallizes at temperatures even below room temperature, any mismatch in thermal expansion or any residual stresses from the bonding will simply disappear."

11. Note that the breaking open of an oxide skin is suggested by Ljung et al, but not literally recited. Numerous teachings from the known prior art can be found describing the inherent tendency for indium and indium alloys to form oxide skins and the various means employed by the prior art to break open those oxide skins (see for example, Bosch, Marafioti, Freeman et al and Chase et al.) Clearly, Ljung et al suggests breaking open the oxide skin with pressure to "cause unoxidized indium to flow out".

12. Kawai et al and Ljung et al do not teach an inflow preventing member or a getter. It would have been obvious for a person of ordinary skill in the art to include an inflow preventing

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member or a getter in the glass panels described because these elements were well known parts of vacuum sealed optical devices.

13. Kawai et al and Ljung et al did not teach an outflow restricting member, per se. The embodiments of figures 4 and 5 of Kawai et al clearly restricted the flow of molten solder by placing it inside the vent.

14. Kawai et al and Ljung et al did not teach that the metal solder was to come into contact with the other (non-vented) glass sheet. It would have been obvious for a person of ordinary skill in the art to flow the molten solder through the vent to come into contact with the other glass sheet because the resulting seal glass-to-metal interface would have had more surface area, and therefore a better hermetic seal.

Conclusion

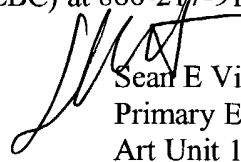
15. The prior art made of record and not relied upon is cited to further show the state of the art.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E Vincent whose telephone number is (571) 272-1194. The examiner can normally be reached on M - F (8:30 - 6:00).

17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S Vincent


Sean E Vincent
Primary Examiner
Art Unit 1731